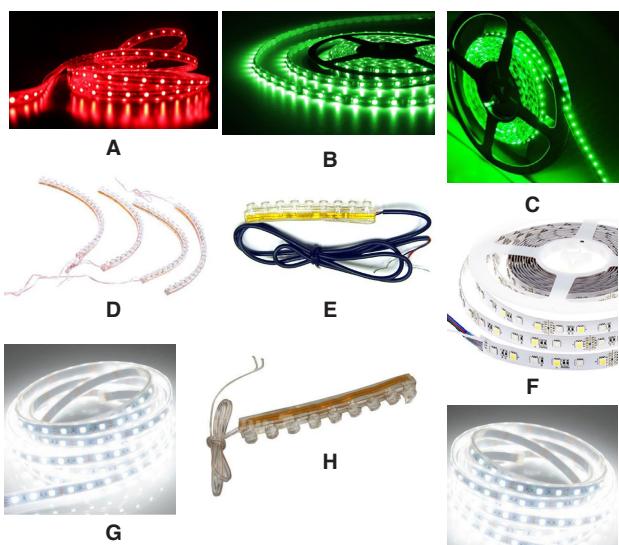


## LED STRIPS



- Flexible, heat and water resistant
- Super bright, low power consumption
- Easy installation, double sided tape and connecting wires
- Typically used on ATVs, Headlights, Motorcycles, and more

Part No.	Description	Fig	Price
78LEDRD75	45 Red LEDs, 75cm long	A	\$4.50
78LEDGR60	30 Green LEDs, 60cm long	B	3.90
78LEDGR75	45 Green LEDs, 75cm long	C	4.50
78LEDBL30	15 Blue LEDs, 30cm long	D	2.50
78LEDWH9	9 White LEDs, 20cm long	E	0.20
78LEDWH15	9 Cool White LEDs, 15cm long	F	4.50
78LEDWH25	15 Cool White LEDs, 25cm long	G	3.90
78LEDWH24	24 White LEDs, 24cm long	H	4.50
78LEDWH45	45 White LEDs, 75cm long	I	2.50

## BICOLOR LED

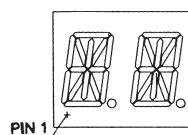
### AVAGO / AGILENT / HP

- HLMP – 4,000
- 5mm, T 1-3/4
- Min. purchase of 10
- Two different colors depending on leads used – Red / Green

Part No.	10-99	100+
08HLMP4000	\$0.15	\$0.12

## ALPHANUMERIC DUAL

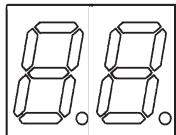
- 6 dual digit alphanumeric display
- 0.56"; green color;
- Lite On LTP-3790JG



Part No.	1-9	10-99	100+
08LTP3790JG	\$0.70	\$0.60	\$0.50

## LITE ON DUAL 7 SEG. DISPLAY GREEN

- 0.4", CA Dual Display
- Mounted on spacer



Part No.	1-9	10-99	100+
08LTD4608HG	\$0.40	0.35	0.30

## OPTO BONANZA LED / QTY PRICING

Typ. Intensity 1.5mcd.

Part No.	Description	1K	10K
08L32RD	Red; T1; 3mm	\$0.035	\$0.025
08L53RD	Red; T1-3/4; 5mm	0.035	0.025



## PHOTO-TRANSISTORS

Part No.	Fig.	1-9	10-99	100+
08OP500W	A	0.40	0.30	0.25
08OP501SW	B	0.40	0.30	0.25

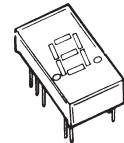


## 7 SEG. DISPLAY SINGLE



Part No.	Description	10-99	100+
08TIE812	0.8"; C.A.; Single Digit	0.60	0.50
08TIE813	0.8"; C.C.; Single Digit	0.60	0.50

## 7 SEG DISPLAY

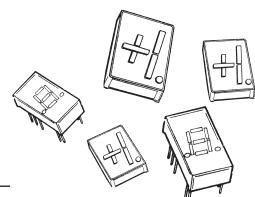


Part No.	Description	10-99	100+
08MAN3051	0.3"; C.A.; Sng.Dig.; Green	\$0.40	\$0.30
08MAN6520	0.6"; C.A.; Sng. Dig.; Green	0.40	0.30
08MAN6530	0.6"; C.A.; Overflow; Green	0.25	0.20
08MAN6550	0.6"; C.C.; Overflow Dig.; Green	0.25	0.20
08MAN6930	0.6"; C.A.; Overflow; Red	0.25	0.20

## SEVEN SEGMENT DISPLAY GRAB BAG

ASST SIZES AND COLORS

10 PCS./BAG



Part No. 32GRABSEG • Price \$2.95

## LED PANEL INDICATOR LAMP

- Red plastic housing
- 1/2 inch mounting
- Long, wire leads

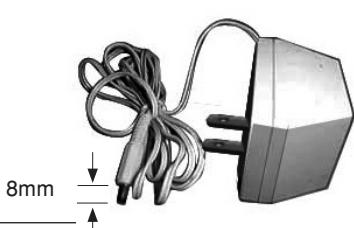


Part No.	1-9	10-99	100+
091090A112	\$0.45	\$0.42	\$0.39

# SURPLUS

## WALL ADAPTER

- Input: 120VAC
- Output: 12VDC - 300 ma
- 5.5Mm barrel plug
- 2.5Mm center positive
- White
- UL



Part No. 16D12-3 • Price: \$1.65

## TRANSISTOR

NPN-Si, AF power amp, Zenith #121-755 (cross to ECG 190®). Pre-formed leads.



Part No.	1-9	10-99	100+
11121-75	\$0.65	\$0.49	\$0.45

## AXIAL LEAD METALLIZED POLYESTER CAPS

ALL 100V

SOLD IN 100 PC.

LOTS ONLY



Part No.	Value	Price/Pkg.
14MP100.015U	.015 F 100V 10%	3.00

## RADIAL LEAD

## ELECTROLYTIC CAPS

SELLING "AS IS" – OLDER DATE CODES

SOLD IN 100 PC. LOTS ONLY

Part No.	Value	Price/Pkg.
14ER10330U	330 F 10V	4.00
14ER6.3330U	330 F 6.3V	3.00
14ER6.3470U	470 F 6.3V	2.00
14ER10470U	470 F 10V	3.00
14ER6.31000U	1000 F 6.3V	4.00

## NON-POLAR ELECTROLYTIC CAP

10 PC. MINIMUM

4.7 f, 160V.

Part No.	10-99	100+
14ERN1604.7U	\$0.24	\$0.19



## RSR LIGHT METER ADAPTOR

### MODEL LX-02

- 0 to 50,000 in 3 ranges
- Output 0.1mV DC per 1,10,100 Lux
- Used on any digital meter to read lux
- Accuracy: 5% +0.1mV
- Size: 3.9" x 1.9" x 1.0"



### Part No. Price

01LX02	\$39.00
--------	---------

## 28 PIN SOLDER PRACTICE IC'S

### 13 PIECE TUBE

28 pin dual-in-line (DIP) package IC's for solder practice usage. Unmarked and not guaranteed functionally or electrically. Sold "by the tube". Each tube contains 13 IC's.



Part No.	Description	Price
1028PTUBE	13 piece tube of 28 pin DIP IC's 5/8" width. For solder practice only	\$2.95

## 40 AND 64 PIN MACHINE TOOLED WIRE WRAP SOCKETS GOLD LEADS

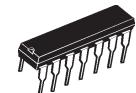
Level 3 machine tooled wire-wrap socket with gold leads and receptacles. Perfect for proto-typing with 40 pin .7" width and 64 pin 1" width devices.



Part No.	Description	Price
19SURP40WW	40 Pin Wire Wrap Socket	\$5.95
19SURP64WW	64 Pin Wire Wrap Socket	9.50

## INTEGRATED CIRCUITS

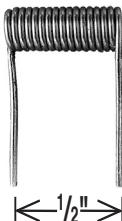
MINIMUM PURCHASE OF 10 PIECES FOR ANY IC TYPE



Indust. No.	Part No.	10-99	100+
74H00	1074H00	\$0.10	\$0.08
74L00	1074L00	0.10	0.08
74HCU04	1074HCU04	0.10	0.08
27C512N (One Shot)	1027C512N	1.20	1.00
7403	107403	0.15	0.12
74LS00	1074LS00	0.30	0.20
74LS04	1074LS04	0.40	0.24
74LS08	1074LS08	0.40	0.24
74F74	1074F74	0.12	0.08
NE555	10555	0.22	0.15
LM741	10741	0.22	0.15
LM10	10LM10	1.20	0.85

**COIL – .39  $\mu$ H**

16 turn coil of .39  $\mu$ H inductance. Q=100 @ 50MHz. SFR 600 MHz (min.). Ideally suited for high frequency oscillators (around 80 MHz to 100 MHz)



Part No.	1-9	10-99	100+
15SCOIL	\$0.30	\$0.25	\$0.20

**SIP RESISTOR  
NETWORK  
10 PCS. PER PAK**


Part No.	Description	Price/Pak
13SIP1	390 $\Omega$ 10 Pins, 5 Resistor	\$0.50
13SIP2	4.7K 8 Pins, 4 Resistors	0.50

**DIP RESISTOR  
ISOLATED RESISTORS  
– 10 PCS. PER PAK**


Part No.	Description	Price/Pak
13DIP2	3.3K $\Omega$ 16 Pins, 8 Resistors	1.00

**CAPACITORS**

MYLAR AXIAL;  
TOLERANCE +5 TO+10%  
VARIOUS VALUE AND  
VOLTAGES



Part No.	Value	Voltage	10-99	100+
14MA200.01U	.01 F	200V	\$0.06	\$0.04
14MA100.1U	.1 F	100V	0.06	0.04

**CAPACITOR MYLAR RADIAL****.47 F 250V**

Size: 0.9" x 0.5" x 0.3"  
Lead Spacing: 0.6"



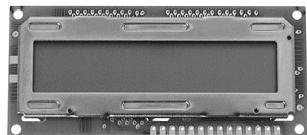
Part No.	1-99	100-999	1000+
14MR250.47U	\$0.16	\$0.12	\$0.10

**MYLAR BOX CAP**

.047 f 1,000V; 7/8" lead spacing



Part No.	1-99	100-999	1,000+
14MR1K.047U	\$0.08	\$0.07	\$0.06

**LCD DISPLAY 16 X 2****HITACHI: LM071L**

- 16 x 2 LCD module
- 5 x 7 dot matrix characters
- 5mm character height
- 3.15" x 1.41" x 0.37" size
- Spec Sheet download at [http://www.elexp.com/srp\\_cd40.htm](http://www.elexp.com/srp_cd40.htm)

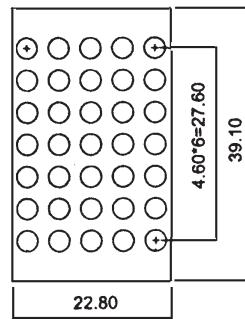
**Part No. 08LCD40 • Price \$5.95****INFRARED DETECTOR****SHARP: GP1U27S**

- Infrared detecting unit for remote control
- For general electronic equipment use – AV equipment, home appliance, OA equipment
- BPF center frequency 40KHz

Part No.	1-9	10-99	100+
08GP1U27S	\$0.90	\$0.80	\$0.70

**LED MATRIX DISPLAY****5 X 7 MATRIX; 1.5" ht**

Light up red.



Part No.	Description	1-9	10+
08F12571AS	Anode Column, Cathode Row	\$1.50	\$1.20
08FYM12571BS	Cathode Column, Anode Row	1.50	1.20

**RESISTORS WIRE WOUND****5W; +10%****VALUE: 5.6 OHM, 68**

Part No.	Value	10-99	100+
130510 5.6	5.6 ohm	\$0.15	\$0.10
130510 68	68 ohm	0.15	0.10

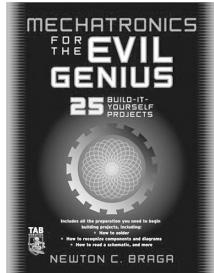
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## BOOKS

### MECHATRONICS FOR THE EVIL GENIUS 25 BUILD-IT-YOURSELF PROJECTS

The popular Evil Genius format provides a fun and inexpensive way to learn how to combine electronics with mechanics. Projects include: mechanical race car, combat robot, ionic motor, electromagnet, analog computer, mechantronic head, coin tosser, robotic arm, light beam, remote control and more. Includes parts list and tool bin for each project. Covers "How to Solder", component recognition/identification and how to read schematic diagrams. 350 pages.

Part No. 31M0071457593 • Price: \$24.95

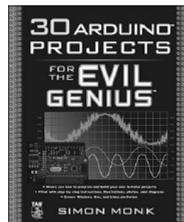


### 30 ARDUINO PROJECTS FOR THE EVIL GENIUS

This wickedly inventive guide shows you how to program and build a variety of projects with the Arduino microcontroller development system. Covering Windows, Mac, and Linux platforms, 30 Arduino Projects for the Evil Genius gets you up to speed with the simplified C programming you need to know--no prior programming experience necessary.

Using easy-to-find components and equipment, this do-it-yourself book explains how to attach an Arduino board to your computer, program it, and connect electronics to it to create fiendishly fun projects.

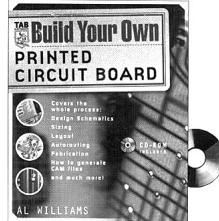
Part # 31M007174133X • Price: \$24.95



### BUILD YOUR OWN PRINTED CIRCUIT BOARD

Complete with CD-ROM, this 240 page book offers step-by-step instructions on designing and creating a printed circuit board and how to use it with a PIC Microcontroller. Shows how to generate CAM (Computer Aided Manufacturing) files and produce your own boards. Covers entire board process: design, size, layout, autorouting and fabrication. CD-ROM includes EagleCAD design tool.

Part No. 31M0071427838 • Price: \$29.95



### NTE SEMICONDUCTOR CROSS REFERENCE/REPLACEMENT GUIDE

NEWEST EDITION ALWAYS SHIPPED



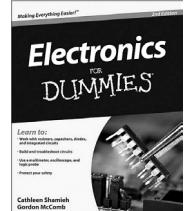
The NTE Catalog has become the industry's guide when you need semiconductors. It contains cross references to American, European & Japanese industrial and commercial devices. New cross references and devices always being added.

Part No. 31NTE • Price: \$6.75

### ELECTRONICS FOR DUMMIES

#### 2ND EDITION

The leading beginner's guide to electronics — over 75,000 copies sold in the previous edition — now completely updated!



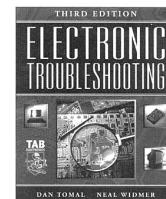
In its first edition, this fun and easy guide quickly established itself as *the* go-to resource for novice electronics hobbyists and do-it-yourselfers. Now updated to cover all the latest developments and trends and expanded with new projects and new full-color illustrations, it's just what people need to take the plunge into the world of electronics

- Features lots of new projects — including over 20 breadboard projects that can be done in 10 minutes or less.
- Contains eight pages of all-new full-color photos illustrating techniques and finished projects.
- Thoroughly updated with all the latest information on tools and safety, multimeters, oscilloscopes, logic probes, resistors, capacitors, transistors, breadboard circuits, printed circuit boards, and microcontroller implementation and programming.

Part No. 31WI286975 • Price \$24.99

### ELECTRONIC TROUBLESHOOTING

Updated to include current devices and equipment, this 368 page book features many "tricks of the trade" for trouble shooting and repair. Complete with handy quick problem solving graphs and flowcharts. Appendices cover specific techniques for common consumer electronics. Authored by Professors of Electronics from major universities.

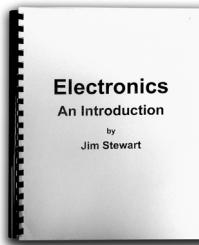


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## ELECTRONICS AN INTRODUCTION

An excellent introduction to electronics for students in medical field. Basic concepts, electronic devices, amplifiers, digital electronics and microprocessors

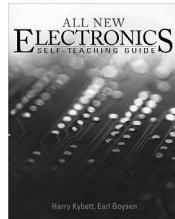
**Part # 31JWSEAI • Price: \$39.95**



## ALL NEW ELECTRONICS SELF-TEACHING GUIDE

At long last, an updated revision of the bestselling self-teaching electronics guide!

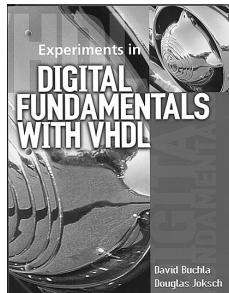
- Although basic electronics principles have not changed since the previous edition was published in 1986, the application of those principles certainly has and this guide walks readers through these exciting updates.
- Incorporates the prevalence of integrated circuits in today's world of electronics and discusses the changes to the technology, including the capacity of an integrated circuit.
- Encourages readers to take advantage of the tremendous wealth of knowledge of electronics contained within this unparalleled reference.



**Part No. 31WI0470289617 • Price: \$34.99**

## EXPERIMENTS IN DIGITAL FUNDAMENTALS WITH VHDL

Provides laboratory exercises that support *Digital Fundamentals with VHDL* by Tom Floyd. The manual supports the PLDT-2 and PLDT-3 boards from *RSR Electronics*, as well as the DeVry University board, and the Altera University Program board. Each of these boards is described in detail including pin numbers as needed. The manual provides a bridge between fixed-function logic (standard TTL and CMOS ICs) and VHDL logic by providing two procedures for most experiments – one for a fixed function experiment, the other for a VHDL experiment. The VHDL procedure tends to be tutorial in nature, as most of the VHDL programs are complete but may have a line or two left to complete (with lots of examples.) The manual also has two tutorial exercises. The tutorial exercises are designed to introduce the two compilers supported by the manual – Xilinx and Altera. A CD containing all of the programs in the manual simplifies entering them into the editor.



**Part No. 31P0130453056 • Price: \$91.50**

## PARALLAX®

### BASIC ANALOG AND DIGITAL STAMPS IN CLASS CURRICULUM

*Basic Analog and Digital* is a 162-page tutorial that covers the essentials of 8-bit A/D and D/A conversion using a BASIC Stamp module. The text introduces PBASIC commands for A/D conversion with resistor / capacitor circuits, interfacing an ADC0831



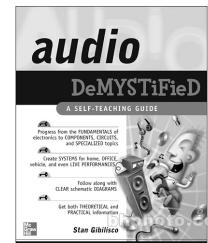
8-bit A/D converter, scaling analog outputs into meaningful digital values, analyzing time-varying signals and using PWM as analog output. These concepts are conveyed using potentiometers, LEDs, speakers, photoresistors and buttons. The text was written by Andy Lindsay of Parallax.

*Board of Education Full Kit (#28103) is required to use this Stamps in Class text.*

Part No.	Description	Price
32PX28155	Parts and Text	\$48.50

## AUDIO DEMYSTIFIED

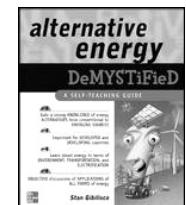
The fast and easy way to learn audio-frequency electronics. This new addition to the Demystified series offers practical, easy-to-understand information on the latest audio-frequency (AF) electronics technologies. You will learn basic electronics and mathematical concepts, followed by details on speakers, microphones, amplifiers, and equalizers. Specialized topics include computer recording, home and car audio system installation, amplifier design, and live sound reinforcement.



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**Part No. 31M0071475540 • Price \$19.95**

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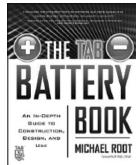
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(732) 381-1572 **315**

## BOOKS

### THE TAB BATTERY BOOK AN IN-DEPTH GUIDE TO CONSTRUCTION, DESIGN, AND USE

Ideal for hobbyists and engineers alike, The TAB Battery Book: An In-Depth Guide to Construction Design and Use offers comprehensive coverage of these portable energy powerhouses. This practical guide discusses battery chemistry and engineering, how batteries are used, and the history of batteries. You'll find out how different types of batteries work and how to select the right battery for any application.

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### JUNKBOTS, BUGBOTS AND BOTS ON WHEELS

A do-it-yourself guide to BEAM (Biology, Electronics, Aesthetics, Mechanics) robots. They are cheap, simple, and can be built by beginners in just a few hours with the help of this expert guide. Complete with full color photos.

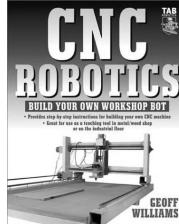
Part No. 31M0072226013 • Price: \$24.95



### CNC ROBOTICS

Illustrated directions for designing, constructing and testing a fully functional CNC robot that saves you 80 percent off the price of an off-the-shelf bot. Can be customized to suit your exact purposes.

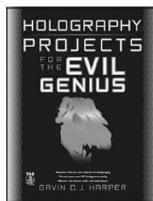
Part No. 31M0071418288 • Price: \$36.50



### HOLOGRAPHY PROJECTS FOR THE EVIL GENIUS

This wickedly inventive guide explores the art and science of holography and shows you how to create your own intriguing holograms using inexpensive materials. Holography Projects for the Evil Genius explains the tools and techniques you need to know to represent three dimensions on a flat, two-dimensional plane. Using easy-to-find components and equipment, this do-it-yourself book presents a wide variety of holography projects--including science fair ideas--that are guaranteed to impress.

Part # 31M007624007 • Price: \$24.95

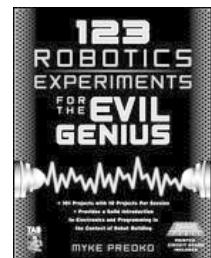


### 123 ROBOTIC EXPERIMENTS FOR THE EVIL GENIUS

If you enjoy tinkering in your workshop and have a fascination for robotics, you'll have hours of fun working through the 123 experiments found in this innovative project book.

More than just an enjoyable way to spend time, these exciting experiments also provide a solid grounding in robotics, electronics, and programming. Each experiment builds on the skills acquired in those before it so you develop a hands-on nuts-and-bolts understanding of robotics – from the ground up.

Part No. 31M0071413588 • Price: \$24.95



### BUILD YOUR OWN ALL-TERRAIN ROBOT

Build your own Mars Rover!! A tough robot that travels where you can't (even in total darkness), sees what lies hidden from your eyes, reports back instantaneously with live color video and audio and can even converse with the carbon-based life forms it encounters. Plans, illustrations and instructions to build a talented, versatile and rugged off-road robot with a range of over a mile.

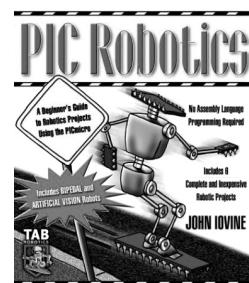
Part No. 31M007143741X • Price: \$29.95



### PIC ROBOTICS

Shows both electronics amateurs and professionals how to use the versatile 8-bit PIC microprocessor family to build sophisticated robots.

Features include: artificial vision system that uses a CCD camera to track and follow brightly colored objects, bipedal robots that walk upright, functional robotic arm, easily programmable behavior-based robots, complete parts lists for all projects and step-by-step directions for several complete projects and ideas for hundreds more. Build robots that use a CCD camera, walk on two legs, walk on six legs, obey verbal commands and look for and track bright light sources.



Part No. 310071373241 • Price: \$20.95



## ALTurbine

The ALTurbine (Adaptable Learning Turbine) is designed for wind energy experiments for classrooms and science projects. Build this turbine to test motors, gears, and blade designs. Test your power output with LED and incandescent bulbs, a mini water pump, and more.

### Full Kit Includes

- Wood Tower & Base
- Parts to build ALTurbine Head w/Hub, Driveshaft & Gears
- (5) 18" Balsa Wood Sheets
- (5) 16" Coroplast Sheets
- (1) Digital Multimeter
- (2) DC Generators
- (25) 1/4" Dowels
- (1) Additional Driveshafts
- LED/Incandescent Light Bulbs
- Turbine Test Prop
- Ultra Capacitor
- Low Voltage Water Pump w/ Graduated Cylinder
- Sandpaper
- Curricular materials
- Assembly instructions

### Parts Only Kit

The ALTurbine parts only kit is like the full kit. It comes with the materials you need to do a wind energy experiment, but it does not include blade material or electrical devices to attach to the turbine.

Part No.	Description	Price
32KW100	Full Kit	\$125.00
32KW105	Parts Only	59.00



## COMPREHENSIVE WIND KIT

### FULL KIT

With this package students can explore wind turbines, wind energy resources around their school, and the characteristics of wind as it moves around the earth.

- (1) ALTurbine Full Kit, including Weightlifter pack
- Geared Turbine Full Kit, NO water pump/cylinder set included
- (1) Basic Turbine Kit, NO multimeter included
- (1) Mini Turbine Full Kit
- (1) Green Science Windmill Generator
- (1) ALT Gears and Motor Mount Pack
- (3) 12 Hole Crimping Hubs
- (25) 1/4" Dowels
- (1) Visual Voltmeter
- (10) Balsa Sheets
- (10) Coroplast Sheets
- (1) water pump only

Part No. 32KW200 • Price: \$610.00

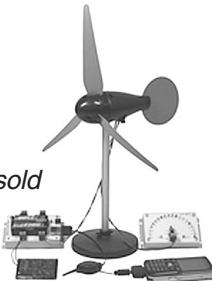


## WIND CHARGE PLUS

This high power Wind turbine can be used for recharging practically anything. Examples: NiMH batteries, Fuel Cells, Mobile Phones

All accessories shown in the picture are sold separately in the accessory section.

Part No. 32PTWCP366 • Price: \$74.95



## MINI KID WIND TURBINE

### FULL KIT

**KidWind MINI 2.0** allows for experimenting with variable wind speeds, powering low load electrical devices, and effectively demonstrating how wind power works. With the included sound and light board users can illustrate power output by playing music and lighting additional LEDs.



The blade set that comes with this turbine has been specifically molded for ideal power output giving this turbine some serious voltage. Although a single MINI will not power the water pump on its own, wiring two or more MINI turbines in parallel will give you enough power to pump water. Try adding one MINI at a time to see how it affects the amount of water being pumped!

Part No. 32KW140 • Price: \$32.95



## BASIC TURBINE

### FULL KIT

The Basic Turbine is a great start for teaching about wind energy in the classroom. This is the most affordable and robust wind turbine kit on the market. Design blades and test your power output with a multimeter, LED bulbs, or an ultra capacitor.



#### Includes:

- All pipe / fittings (or wood) to build turbine
- (1) DC Generator w/Hub
- (25) 1/4" Dowels
- (5) 18" Balsa Wood Sheets
- (5) 16" Coroplast Sheets
- Simple Multimeter
- Small DC Motor w/Propeller
- Ultra Capacitor
- Alligator Clip Cords
- (2) LED Bulbs
- Protractor
- Black Propeller
- Sandpaper
- Curricular Materials
- Assembly Instruction

Part No. 32KW110 • Price: \$81.50



## SCIENCE FAIR – FULL KIT

This kit includes a variety of materials to help you build your own wind turbine. It is a collection of hard-to-find materials that we use when experimenting. This kit does not include materials to build a tower; that is for the student to figure out! Building and testing your own wind turbine can take many hours. This kit includes a packet of ideas to try.



Part No. 32KW150 • Price: \$65.00

Call Toll Free: 1 (800) 972-2225

• In NJ: (732) 381-8020 • Fax: (732) 381-1006  
(732) 381-1572 317

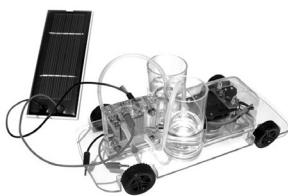
## EDUCATIONAL KITS

### velleman FUEL CELL CAR SCIENCE KIT

This Fuel Cell Car Science Kit uses a reversible PEM fuel cell that combines electrolysis and power conversion into one single device. Watch as oxygen and hydrogen gases are formed in two transparent water containers. The car steers independently of the user once in operation: when the car hits a barrier, it will automatically find its way by reversing away 90 degrees. This fun science kit combines cutting-edge science, education and fun for all!

#### Features

- Recommended age: 14 years and up
- This kit contains:
  - PEM reversible fuel cell module
  - Car chassis & wheels
  - Electric motor
  - Flashing LED lights
  - Water vessels
  - Gas collectors
  - Connector cables
  - Syringe
  - Battery pack for 2x 1.5V AA batteries (batteries not incl.)
  - User manual on CD



Part No. 32VKKNS10 • Price: \$79.95

### velleman H-RACER 2.0 IR & HYDROGEN STATION KIT

This futuristic hydrogen car science kit is an amazing way to demonstrate the use of cutting-edge alternative energy and automotive technologies. Its partly transparent body displays the inner mechanics of the car. The car's assembly instructions make it easy and fun to build, and also provides interesting education on real-world challenges.



- Recommended age: 12 years and up
- This kit contains:

- H-racer chassis & body
- Fuel cell system components
- Hydrogen refuelling station (2 x 1.5V AA, LR6C, not incl.)
- Solar panel & connectors
- Infrared remote control (3 x LR44, not incl.)
- Assembly & operation manual

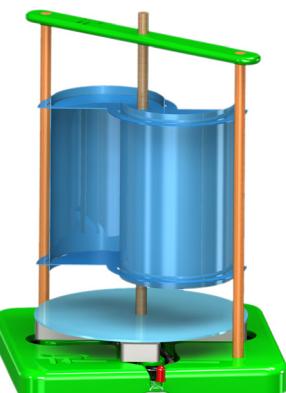
Part No. 32VKKNS11 • Price: \$139.95

### SAVONIUS BASIC WIND TURBINE

8 inch tall Wind turbine. Build your own magnetic induction generator using magnets and coils which are included. Produces 0.5V ~ 5.0V @ 0.15mA.

Includes: Turbine base, top frame, (4) grade 5 magnets, (4) insulated coils, plastic disc, 8" center dowel, (2) 7.5" side dowels, (2) S-frame, (2) blade cups, (2) stabilizers, bi-color LED, tape, sand paper. Increase power by using optional neodymium/rare earth magnets.

Intermediate and Advanced versions of this kit also available.

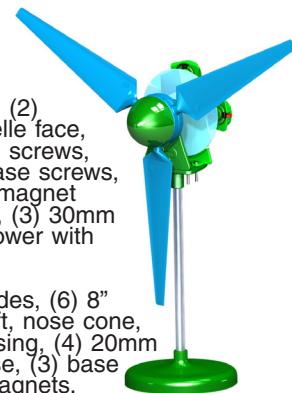


Part No. 32PWV3 • Price: \$49.95

### SKYZ WIND EDUCATION KIT

26 inch tall wind turbine. Produces 1.5V ~ 7V @ 150mA. Create a magnetic induction generator using included coils and magnets.

**Basic Model:** Includes (3) 8" blades, (2) 3-blade hubs, shaft, nose cone, nacelle face, nacelle base, coil housing, (4) 20mm screws, tower, tower base, metal base, (3) base screws, (2) stabilizers, (4) grade 5 magnets, magnet disc, (4) insulated coils, bi-color LED, (3) 30mm screws, tape, sandpaper. Increase power with optional rare earth magnets.



**Limitless Model:** Includes (6) 6" blades, (6) 8" blades, (6) 10" blades, (2) hubs, shaft, nose cone, nacelle face, nacelle base, coil housing, (4) 20mm screws, tower, tower base, metal base, (3) base screws, (2) stabilizers, (4) grade 5 magnets, magnet disc, (4) insulated coils, bi-color LED, (3) 30mm screws, tape and sandpaper. Increase power by using optional rare earth magnets.

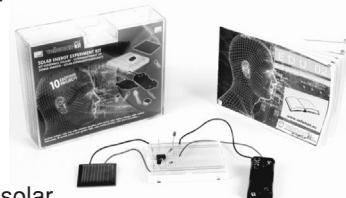
Part No.	Description	Price
32PWH1	Basic Model	\$79.99
32PWH3	Limitless Model	109.95

### velleman SOLAR ENERGY EXPERIMENT KIT

Solar Edukit: Fun solar powered projects. Learn all about solar energy.

#### Features

- Part of our EDUKIT range
- Clear instructions
- 10 exciting projects
- With micro controller
- HQ breadboard
- No soldering required!
- Projects include: solar led, solar attention grabber, solar cricket, solar battery charger, solar musical instrument, IR remote tester, solar garden light, solar motion detector, solar alarm simulator, ...



#### Specifications

- breadboard dimensions: 80 x 60mm / 3.15" x 2.36"

Part No. 32VKEDU02 • Price: \$24.95

## BASIC SOLDERING KIT

### ECONOMY MODEL, COMPLETE WITH TOOLS, INSTRUCTIONS AND PROJECT KIT

A one-stop-shop for everything needed to learn or improve fundamental soldering skills. Save by getting large volume pricing on all the individual items contained in this all in one convenient package.

#### Product Features:

- Temperature controllable solder station
- Safety goggles
- Mini long nose pliers
- Diagonal cutter
- 4-piece solder aid kit
- 7-in-one hand tool stripper/cutter/crimper
- Solder sucker
- Fun lights solder practice kit
- Soldering techniques pamphlet
- Resistor and capacitor color code guide
- Solder tube (lead free)
- Helping hand with lens
- Packed in convenient cardboard box

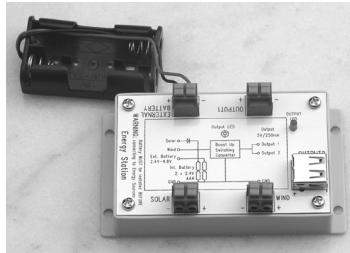


Part No.	Description	Price
32BASSLDR	Basic Soldering Kit	\$36.95

## ENERGY STATION

### BATTERY CHARGER / REGULATOR KIT

The Energy Station was designed to work in conjunction with most miniature wind turbines and solar panels. It allows you to charge batteries and power external devices. The regulated output voltage is 5V at 250mA. The optimum input voltage range is 1.8V to 3.6V with a maximum input of 4.5V. Note: Input voltages higher than 4.5V will damage the internal boost up regulator.



#### Technical Information:

- Input Source 1: Wind Turbine Terminal
- Input Source 2: Solar Panel Terminal
- Battery Terminal: For External Battery Connection
- Battery Compartment: 2 x AAA Battery
- Output Terminal: 5V / 250mA

#### Product Highlights:

- Battery charger
- Regulator for converting external low voltage/amperage sources into useable external energy
- Output of 5V/250mA
- Ideal for regulating 1.8V to 3.6V sources

Part No. 32PTES1 • Price \$42.95

## ENERGY CONSUMPTION METER KILL A WATT™

This allows you to measure energy consumption of appliances simply. Simply connect these appliances to the Kill A Watt™, and it will assess how efficient they really are. Large LCD display will count consumption by the Kilowatt-hour, same as your local utility. You can calculate your electrical expenses by the day, week, month, even an entire year. Also check the quality of your power by monitoring Voltage, Line Frequency, and Power Factor.

- Large LCD display
- Cumulative Kilowatt-Hour Monitor
- Forecast Your Costs
- Also display Volts, Amps, Watts, Hz, VA
- 0.2% Accuracy

Part No. 01P4400 • Price: \$28.95



## ELECTRONICS COMPONENTS HOBBY PAK

Plastic container with flexible dividers. Contains 690 components:

- Resistors (73 values); 365 pcs.
- Capacitors (Disc, Mylar, and Electrolytics from 2.2  $\mu$ f to 1,000  $\mu$ f)
- LEDs (20 Different kinds)
- LED Displays (4)
- Photocells (2)
- Digital ICs (2 ea) 74LS - 7 diff. values
- Linear ICs (2 ea) 555, 741, 386
- Regulators (2 ea) 7805, 7812, LM317-T
- Transistors (2 ea) 2N3904, 2N3906, PN2222, 2N3055
- Diodes (2 ea) 1N4007, 1N4148, 1N4728, 1N4733, 1N4739, 1N4744
- Bridge Rectifiers (2) RS406
- Inductors (1 ea) 10 $\mu$ h, 33 $\mu$ h, 47 $\mu$ h, 100 $\mu$ h, 1mh, 10mh, 33mh, 100mh
- Hookup wire spools (2)
- Alligator Lead Set
- Relays (5V & 12V)
- Microphone, Speaker and Buzzer
- 9V battery snap
- Trim Pots (1K, 10K, 50K, 100K, 1M)
- Switches (2 ea) push button, SPST slide, DPDT slide, 8 pos DIP
- Resistor Guide and Capacitor Guide
- Wire Cutter Stripper (060220)
- DC Motor (3V, 9V)
- Prototype Board (0302PB10) and Breadboard (03MB102)



Part No. 32ECHPK1 • Price: \$65.95

## EDUCATIONAL KITS

### MAGNETISM AND ELECTRICITY EDUCATION LEARNING KIT

Learn about magnetism and electricity. Includes a manual with various experiments. Includes magnet, iron filings, magnet wire, DC motors, Galvanometer.

**Part No. 3200MEX • Price: \$27.95**



### SOLAR SYSTEM

Young astronomers will delight in OWI's newest Mini Solar Kit – as they build, paint and watch their very own Solar System come to life



with real solar energy. Planets orbit around the solar-paneled "sun" that drives a motor so the planets actually move. This excellent educational solar kit provides a hands-on lesson about how solar power drives a motor. The kit comes with 6 colors of opaque acrylic paint, plus brush—which makes for the perfect exercise in science and creativity.

**Part No. 32OWIMSK679 • Price: \$18.90**

### 5-IN-1 ELECTRICITY EXPERIMENTS

Five different experiments:

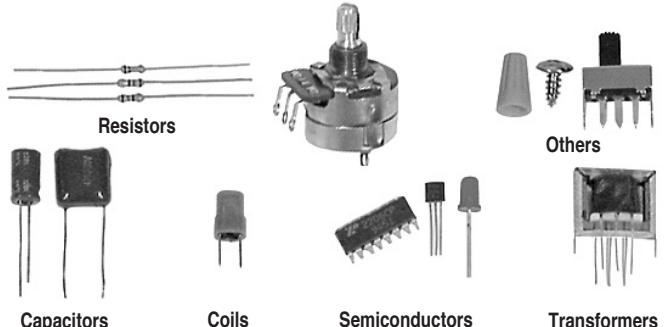


- Morse Code
- Electricity Sound
- Rain Detector
- Burglar Alarm
- Flash Light

Has especially designed case to store all components.

**Part No. 32SM232 • Price: \$6.95**

### LEARN ELECTRONIC COMPONENTS



28 page manual with dozens of illustrations includes detailed description of all parts, their function in a circuit, color codes and five self tests. Over 50 parts with the course!

**Part No. 3200ECK10 • Price: \$9.95**

### SOLAR -LAB-1.0

#### 9 ELECTRICITY LEARNING KIT LABS

This newly designed solar education kit has been created to teach students of all ages, solar cell and electrical circuitry concepts. It contains 9 step by step labs that walk users through easy to understand experiments. Each lesson teaches everything young learners will need to gain introductory knowledge on solar cells as they integrate them into various circuits.

#### Product Highlights:

- Step by step manuals for using solar cells to power electronic devices
- Includes a solar powered battery charger (batteries included)
- Includes a 7-function multimeter for circuitry testing and experimentation



**Part No. 32PTSL1ELK • Price \$53.95**

### THE SOLAR STOVETOP COOKER PATTERN

This set of patterns and templates allow you to make a real solar cooker capable of reaching over 600 degrees F. in a matter of minutes! A great renewable energy project. Impress people at your next BBQ with broiled solar burgers! A practical device if you lose power too.

The kit includes templates to use for cutting all parts, step by step instructions, and recipes for use with the cooker. Adult supervision is needed when cooking, because the temperature is about the same as the "medium" setting on a real stove, enough to cook meat, fish, and vegetables.



**Part No. 32PTSSCP • Price: \$15.95**